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TRUST

TDRSS Resource User Support Tool

Thomas P. Sparn
R. Daniel Gablehouse

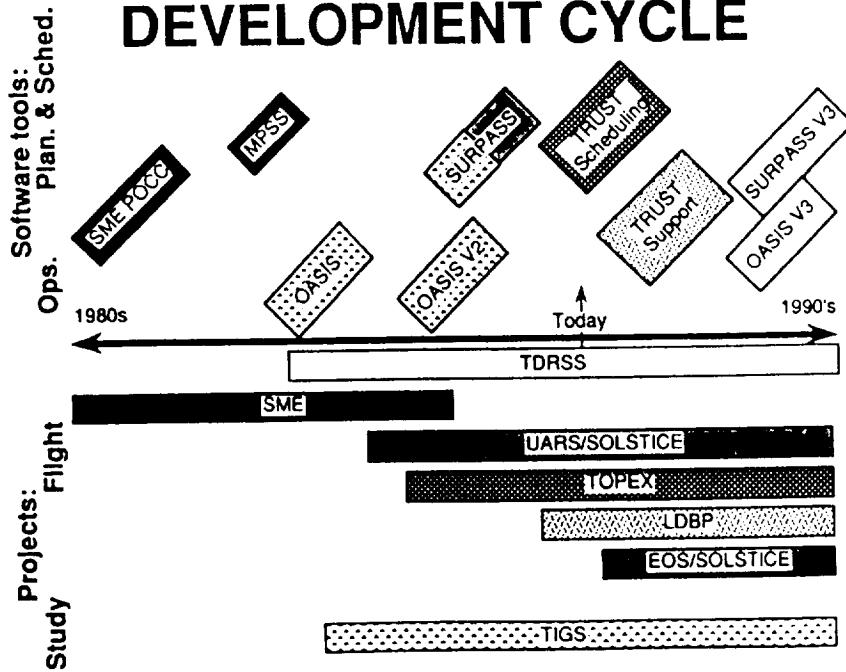
Laboratory for Atmospheric
and Space Physics

University of Colorado

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TRUST DEVELOPMENT CYCLE



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TRUST DEVELOPMENT

Flight Projects

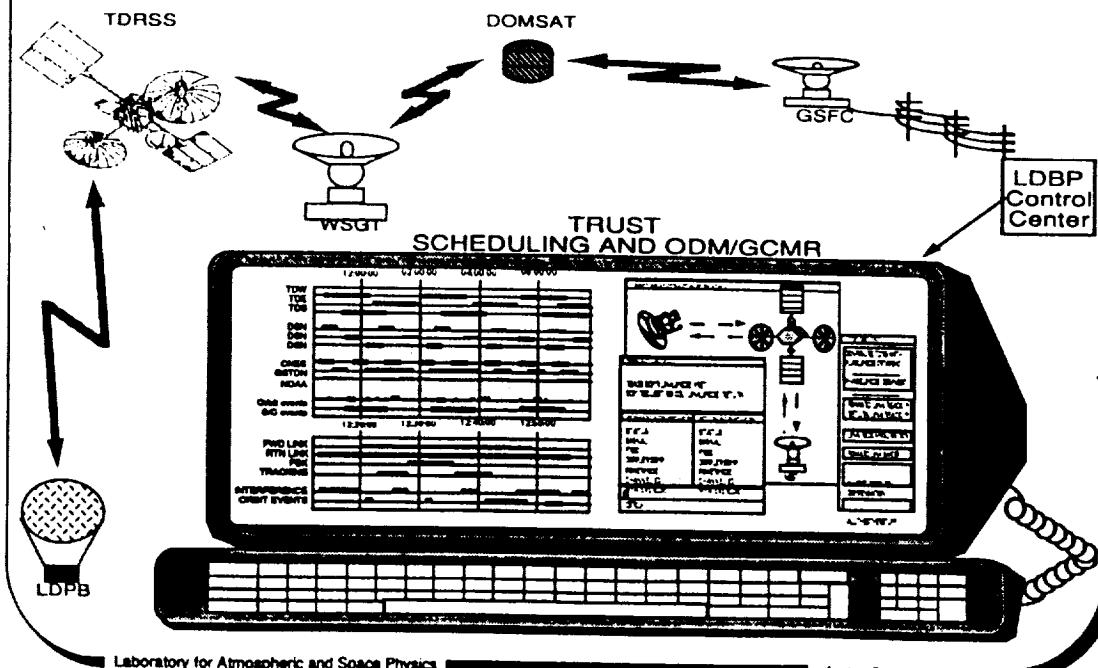
- Solar Mesosphere Explorer (SME): Realtime Control and Monitoring; Science Planning and Scheduling; TDRSS Scheduling and Ground Control
- Solar/Stellar Irradiance Comparison Experiment (SOLSTICE): Science and Mission Planning; Instrument Monitoring, Command and Control
- Ocean Topography Experiment (TOPEX - JPL): LASP Involvement Includes TDRSS Scheduling
- Long Duration Balloon Project (LDBP - GSFC/WFF): LASP Involvement includes TDRSS Scheduling and Ground Control

Study Projects

- Telescience Implications on Ground Systems, Scheduling Architectures Concepts and Networks (TIGS SCAN Testbed - GSFC): LASP Involvement Includes Planning and Scheduling; Instrument Operations

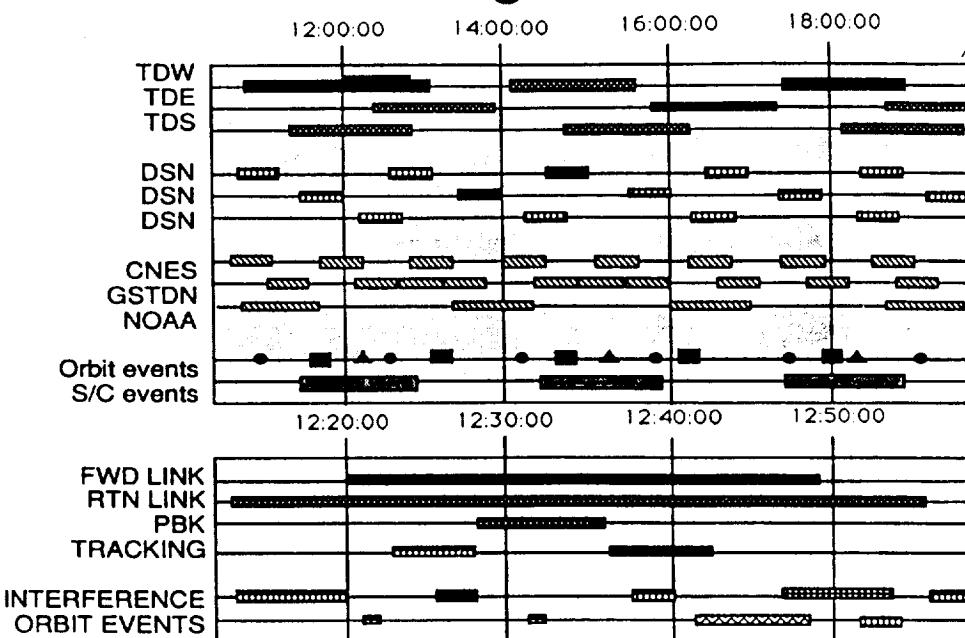
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The TRUST System



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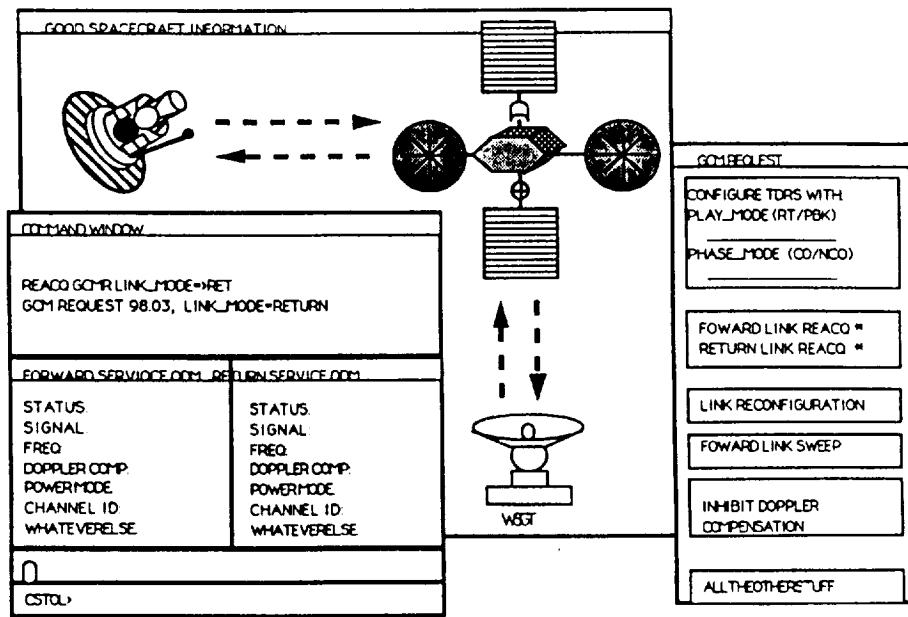
Scheduling Window



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ODM/GCMR Window

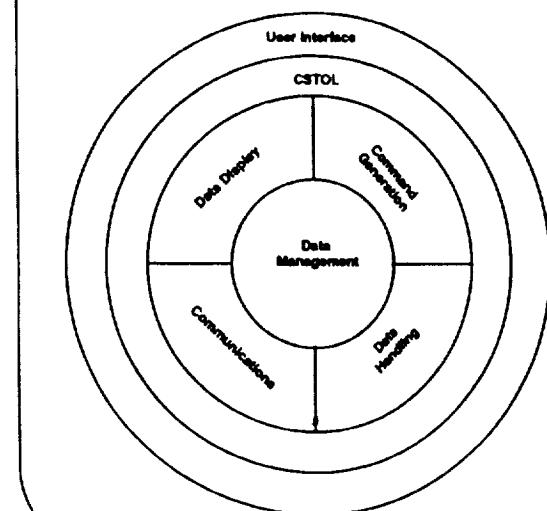


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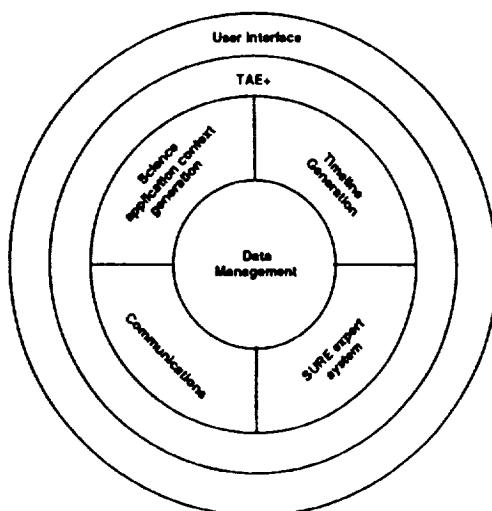
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TRUST Architecture

OASIS



SURPASS

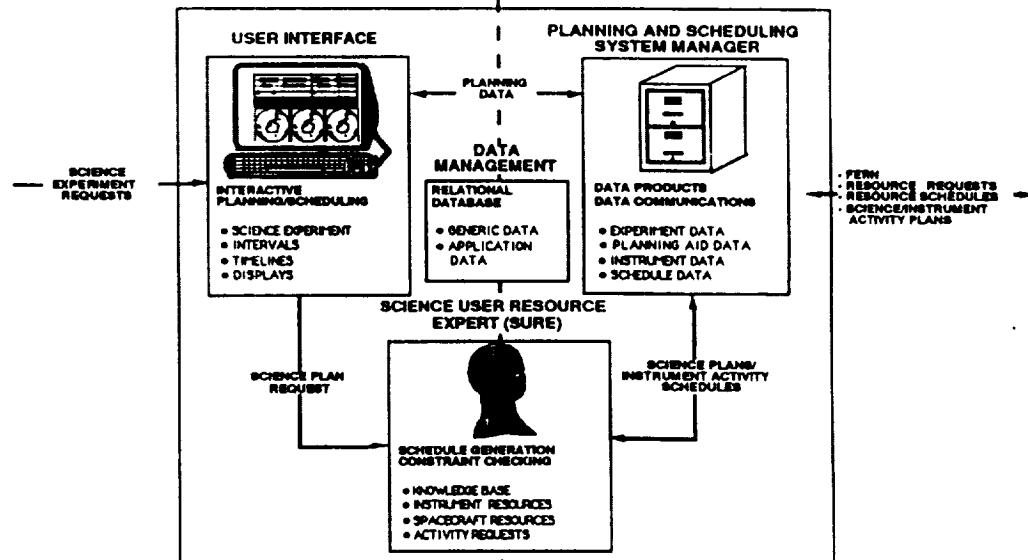


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SURPASS

SCIENCE-ORIENTED | RESOURCE-ORIENTED



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SUMMARY

- Generic TDRSS Scheduling with use of the Expert System
- Automatic Re-scheduling, for conflict resolution, with Expert System
- ODM/QDM Processing and Constraint Checking
- Trend analysis of TDRSS link, as an aid to TDRSS Operations
- Capable of formatting schedule messages, to allow scheduling of multiple networks (TDRSS, DSN, etc.)
- Receives and processes Spacecraft PSAT & Orbital Information
- Capable of handling several communications protocols (NASCOM, SPAN/DECNET, TCPIP, etc.)
- Supplies planner/scheduler/operator a view of possible activities, in the Scientific/Mission Context (X Window Based)
- Menu driven GCMR, Schedule Requests & Processing, If desired
- Multi Spacecraft Capability
- Written Entirely in Ada

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